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Consumer perception of Hungarian agroforestry products – results of a Q-methodology attitude research study

In our study we investigated agroforestry systems and the market for products derived from them, from a consumer perspective. Agroforestry products are not yet in the public domain, so our research focused on the latent market for agroforestry products. This allowed the participants to form only an opinion, reactions which we were able to reveal using the Q-method. In our study, we targeted average consumers who are independent from agroforestry systems and products. Out of the 174 Q-Sort questionnaires, 85 were filled out with valid responses. As a result of our Q-analysis, we created 4 factors in order to minimise the number of factors and achieve a given level of total variance. Factor 'A' (N=26) "Alternative, Green Consumers" are committed to the products of the sustainable economy, so agroforestry products would also be of interest. Factor 'B' (N=21) "Inquisitive Consumers" are interested in and eager to be informed about the products purchased, and they are willing to pay more for agroforestry products. For Factor 'C' (N=10) "Busy Consumers", the low ecological footprint of agroforestry products is a big advantage, and they can be reached with articles published on various news portals and online media most effectively. Opinion Groups 'A' and 'B' choose the traditional market for their purchases - this is why direct selling at local or farmers' markets, fairs, or short supply chains can be beneficial. Potential consumers also appear to be willing to pay a higher price if they find an attractive product from an agroforestry system.

Keywords: agroforestry, perception, Q-method, willingness to pay, attitude
JEL classifications: Q13, Q23

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Introduction

Nowadays agricultural systems, ecosystem health, landscape integrity, and rural resource-based livelihoods are in crisis all over the word (Diaz *et al.,* 2019; Plieninger *et al.,* 2020). The worsening effects of climate change and measures taken to counteract it will place an emphasis on alternative, non-intensive agricultural production on both the international and national markets, and this requires radical changes in the food systems (Willett *et al.,* 2019). Responsible farmers strive to develop and use farming and production methods that are as environmentally friendly as possible. These include alternative and sustainable farming methods, such as agroforestry systems.

In Europe, the term "agroforestry systems (AFS)" defines a diversity of farming landscapes having in common woody vegetation (scattered or clumped trees and scrubs) used in combination with livestock grazing and crop production (Mosquera-Losada *et al.,* 2018). The beneficial effects of the elements of the resulting multifunctional system on one another can lead to more ecological, social and economic management than monoculture farming. These systems include shelterbelts (coastal and field hedges, hedges), grazed forests, wooded pastures, wooded groves, forest gardens, improved fallow land, forests combined with crop production, intermediate crop cultivation and municipal green infrastructure. The goal of agroforestry is to integrate sustainable woody crops into agricultural activities to create an economically, socially and ecologically beneficial structure (Csonka *et al.,* 2018). Agroforestry products could include typically agricultural, forestry and forest-based products such as fruits, vegetables, meat, eggs, dairy products, decoration floral products, timber and other wooden products, mushrooms, herbs, honey and products derived therefrom.

In our study we investigate the agroforestry systems and the market for products that can be bypassed from them from a consumer perspective. There is an increasing demand from the consumer society for natural lifestyles, organic products and green products (forest fruits, mushroom, herbs, etc.) (den Herder *et al.,* 2017) or even for the development of new food brands for agroforestry systems (Deliza *et al.,* 2003; Elghannam *et al.,* 2020). The public is also increasingly conscious of using environmentally friendly solutions in their everyday lives, buying products from ethical and eco-friendly farms. Earlier research has shown that consumers are not sufficiently aware of agroforestry systems, nor are they aware of the benefits of their products (Hannachi *et al.,* 2017). Consequently, our research goal is to contribute to the presentation of the products and advantages of the farming method and with our results we would like to help scale up the strategy of market for agroforestry. Similar studies have not yet been carried out in the sector, except for a few which concentrate on the producers. Agroforestry products are not yet in the public domain in Hungary, so our research focused on the latent market for agroforestry products. This allowed the participants to form only an opinion, reactions which we could reveal by using the Q-method.

Current situation of Hungarian agroforestry

As in the case of conventional agriculture, agroforestry solutions vary from region to region with regard to how they achieve the most efficient production and landscaping. Agroforestry itself is diverse. Wood is also used in various ways (raw material, energy use, food, furniture, etc.), but

agricultural production varies according to crop or livestock. Europe is unique in terms of its traditional agroforestry systems of high natural and cultural value, and the continent has great potential for developing innovative and modern systems with the support of research centres. The development of rural areas has become a key element of the European Union's Common Agricultural Policy. The European Union's rural development policy supports the development of agroforestry systems, which play a positive role in creating social, economic and environmental externalities (den Herder *et al*., 2017).

There are potentially large areas available in Hungary for the establishment of agroforestry systems. According to the survey by den Herder *et al.* (2017), agroforestry systems occupy a total of 38.1 thousand hectares, out of which 2 thousand hectares of arable agroforestry, 36.1 thousand hectares of livestock agroforestry and 2 thousand hectares of high-valued tree agroforestry system. They represent less than 1% of the utilised agricultural area of Hungary where the same products are available as in other parts of the continent coming from agroforestry systems.

Products coming from animal husbandry include meat, cheese and dairy products, while forest products, mushrooms, honey, forest fruits and herbs originate from these systems. Wild pear or apple, jams and brandy are becoming increasingly popular among traditionally made products (Moreno *et al.,* 2018). These products are not recognised on the market, have no unique designation or channel and therefore they are not recognised by the average consumer. There is no defined consumer segment on the market yet, although there would be a variety of quality products. The situation is the same in other European countries, however, they have bigger agroforest areas and more typical, in many cases branded, products. For example, in Spain the results of a study using focus group interviews revealed a lack of citizen familiarity with the agroforestry system, as well as with the services it supplies, besides those that are purely associated with food production. Other key findings were the low importance given by consumers to the item "production system" (Gaspar *et al.,* 2016). A study with 386 consumers in Italy indicated that the majority of respondents (74%) knew little about the positive effects of agroforestry (Bondesan *et al.,* 2016).

In the international market, there are some marketing strategies which work effectively. For example, the Amazonia Hub (www.amazoniahub.com) is an organization which helps agroforestry farmers and enterprises from the Amazon area of Brazil in their marketing activity. The members of this association produce gastronomic and cosmetic products as well. We can find good practices in Sub-Saharan Africa as well, where indigenous and exotic fruits are cultivated and can bring increased revenues for smallholders on the domestic market and improve the diets of local consumers (Jamnadass *et al.,* 2011).

In Europe, the Galician honey (www.mieldegalicia.org) is a widely known trademark from the Galician region of Spain. It contains the honey collected by the bees in the Galician forests and made with traditional procedure. In the Veneto region of Italy, outdoor free-range pig production is rare. However, farmers who use agroforestry systems for pig production often process a large proportion of meat on-farm and they expect to receive a premium price from consumers for products such as traditional fermented salami. The eggs with woodland egg mark are from hens living in an agroforestry system. This label can be found in New Zealand (http://www.woodlandeggs.co.nz) and England as well.

These examples show that agroforestry could improve the effectiveness of small farmers and farmer's groups and foster local economy and cultural habits. Moreover, agroforestry could be able to give added value for the products. The above introduced and other high quality products that have traditionally been products of agroforestry are of particularly high value include the Iberian pig ham from Iberian *dehesas* (one of the most representative agroforestry systems in Europe situated in the southwest of the Iberian Peninsula and characterised by the use of large pasturelands in wooded areas) or reindeer meat in the boreal forest (Gaspar *et al.,* 2016; Moreno *et al.,* 2018). New needs for natural and high-quality products derived from agroforestry systems need also to be explored, such as tannins for tanning leather and antioxidants or gluten-free flours (Moreno *et al.,* 2018). According to Hernández-Morcillo (2018), increasing the portfolio of AFS products, coupled with improved marketing of agroforestry products could be essential. Furthermore, as a good practice, we can mention the certification schemes of the Rainforest Alliance, which tries to improve the financial stability of farmers adopting AFS with shaded coffee plantations in Latin America, which increased coffee yields and provided additional profits (Perfecto *et al.,* 2005). According to Sollen-Norrlin *et al.* (2020), similar schemes for agroforestry products from Europe might increase awareness amongst the public and provide a potential financial incentive for farmers to adopt AFS.

Methodology

During the primary research, we worked with our own collected data that we analysed. Consumers are most easily reached through online questionnaires, and this is probably the most common method these days. For our research, we chose to apply the Q-Method, which was able to examine the opinion of consumers about agroforestry products.

The Q-method was developed by psychologists in the 1930s (Stephenson, 1953), and was used to seek to objectively uncover and analyse (dis)similarities in the subjective viewpoints of individuals. Q-method operates on the assumption of a 'finite diversity' within a particular discourse domain; it attempts to elicit this limited variety of existing discourses among small populations of respondents in a structured and statistically interpretable form. Q allows insight into individuals' subjectivities in a more holistic way than conventional surveys, while providing clearer structure, better replicability, and a more rigorous analytical framework than purely qualitative approaches (Louah *et al.*, 2017). For these reasons, Q methodology is popular across a wide range of research fields, e.g. in psychology, political science and marketing (Lehrer *et al.*, 2017), such as political public opinion and attitude research, clinical psychology, pedagogy, gender research, product development, advertising effectiveness research, consumer attitudes and behavioural research. It is a popular research method in the Anglo-Saxon areas, but only

a few Hungarian research have used Q-Method (Hofmeister-Tóth and Simon, 2006). According to Donner (2001), Q is particularly well-suited for topics in which it is necessary to recognise social complexity and, therefore, it has slowly gained popularity in environmental research (Louah *et al.,* 2017). Moreover, Previte *et al.* (2007) stated that Q-method could be successfully applied to address rural research questions in farming research as well. The Q-Method combines the specifics of a qualitative and a quantitative research method. It is qualitative because it focuses on the subjectivity of opinions and attitudes, but analyses and evaluates data in a quantitative way (e.g. factor analysis, correlation).

According to Davis *et al.* (2011), a Q-Study generally consists of six steps:

1. Research question (s),
2. Compiling a Q-Sample (a list of selected statements),
3. Selection of participants (P-Sample)
4. Completing the questionnaire
5. Data analysis
6. Interpretation of results

Compiling the Q-Sample means selecting statements that are written on cards, which is preceded by previous research on the topic. There are three types of Q-Samples: natural, ready-made and standardised Q-Samples. The natural sample is based on the selection of oral or written statements from interviewees. The ready-made sample takes statements from empirical research results or concepts. Standardised samples use standardised personality tests and value lists. Of course, Q-Samples can also be constructed by using a combined method (Hofmeister-Tóth and Simon, 2006). The selected Q-Samples or so-called statements are placed on cards which are randomly numbered. Participants will rank these cards in order, depending on how much they agree with them or how typical they are. This is known as a Q-sort technique, which is a card layout process in which statements (e.g. opinions, individual words, attributes, values, images, figures) are arranged relative to one. Thus, the method focuses on the active combination of cards by the interviewees (Hofmeister-Tóth and Simon, 2006). The sorting process can be bound and open. The difference between the two procedures is that while the open procedure does not specify the normal distribution of statements, the cards must be placed in a system called a Q-Sorting grid in a bound distribution (Figure 1), according to how much the participant agrees with the statement. According to Brown (1996), individuals are often unaware of their own preferences. For example, they are not aware of the reasons behind their consumer decisions, so the knit sorting principle can help them to make the decision and can also be fun for the filler.

During the evaluation, groups and factors are formed from those who have similar opinions. The mathematical background is provided by the correlation calculation and the modified approach factor analysis. The uniqueness of the method stems from the fact that respondents are treated as variables rather than statements. Statistical evaluation processes rely on factor analysis, correlation, and factor values, where mathematical procedures serve only the creation of subjective (typical) structures. The so-called Q-Correlation forms the basis of factor analysis, which creates similarities and differences between individuals and types. Each participant's response, Q-rating, is compared and correlated with all participants in the research (Hofmeister-Tóth and Simon, 2006).

Data analysis is supported by several software packages. Q-methods can also be applied to standard statistical programs such as SPSS, STATA, etc. There are programs specifically supporting the Q-Method that follow the process from input of values through factor analysis to interpretation of the values obtained. PQMethod is perhaps one of the most widely used software that provides statistical indicators for a given factor analysis. There are already systems available online that support research from the time the questionnaire is compiled and completed. In our study we used an online software called "Q Method Software" (www.qmethodsoftware.com). The fillers were not needed to be personally in a room, they could participate in the research via computer.

During our Q-method examination, we followed the six steps presented above, which we used to compile the Q-sample and evaluate the results. Due to the exploratory nature of the Q-Method, it can respond to potentially complex and socially disputed requests and focus on identifying and interpreting respondents' reports and views (Davis *et al.,* 2011).

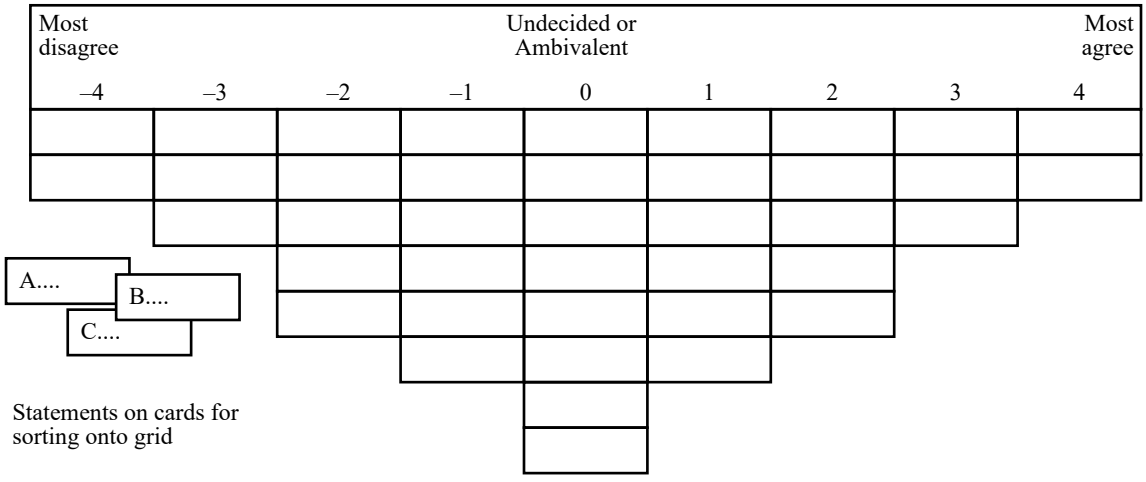

Figure 1: Example of Q-Sort grid.
Source: Eden *et al*., 2005., pp. 415

In the compilation step (Step 2), we explored the research question in the broadest possible terms, in as many ways as possible. We compiled a Q-Sample of 25 statements from a combination of natural and ready-made patterns. Secondary research preceded the compilation of the sample. In order to formulate and select the statements correctly, we first read and studied a number of Q-Studies and reviewed the marketing opportunities of the agroforestry branch based on international literature. Finally, the most widely used literature in our Q-Study is the study presented in Hofmeister-Tóth and Simon's (2006) article. One of the aims of the literature review presented in the first part of our study was to collect the statements. The domestic interpretation of international trends and good practices can provide a good basis for the successful marketing strategy of Hungarian agroforestry farms and the delivery of products to consumers.

Based on Mosyagina *et al.* (1997) and Hofmeister-Tóth and Simon (2006) who used the Q-method in marketing research, we also took the four dimensions of the marketing mix to compile Q-statements. With the help of the marketing mix, we can create a general strategy that can be effectively used to develop a marketing strategy for a latent market (such as domestic agroforestry products market). Finally, with multiple reviews and comments from outsiders, we made 25 statements based on the four dimensions of the marketing mix. We made seven statements for the product dimension, four statements for pricing policy, six statements for sales and product placement and eight statements for advertising policy.

As to the selection of participants (Step 3), most Q-Study requires preliminary work to select the participants. Sometimes it requires to select a specific group, members of an organization, or just as diverse participants as possible to complete the questionnaire. It is important to note that the Q-method is not suitable for representative typing, as the P-sample consists of an average of 1–50 participants. The method is suitable for exploring a specific topic whether there are similar patterns in people's thinking, and this is already a smaller pattern identifiable.

We targeted average consumers who are independent from agroforestry systems and products. Out of the 174 questionnaires sent out, 85 were filled out with valid responses. After the Q-Sorting, the participants filled a traditional questionnaire. As a result, 45 women and 40 men participated in the study. The youngest questionnaire filler is 19, the oldest is 65 years old, and the average age is 36. Out of the respondents, 13 live in the capital city, 10 live in rural areas, 46 live in county seats and 36 live in cities. The majority of the respondents, 64 in total, have a university or college degree, 19 have graduated from a high school, and only a few have vocational or elementary school qualifications as the highest level of education, but they are most probably still studying in high school.

The largest number of the fillers was employees (51 people). We received answers from 20 entrepreneurs, 8 people in managerial positions, 5 students and one housewife. Out of the background variables, we also asked about the financial situation to see the complexity of the participants. Most of them have an average income based on their response, 34 people make a living from their earnings, while 26 people can save some money in each month. 13 fillers live in good financial conditions. Out of the total, 12 people are dissatisfied with their financial situation, with 8 people having financial problems, 3 just hardly being able to live from their salary and one person who is struggling with financial problems in the capital.

Based on the data of the respondents, we tried to reach the average Hungarian consumers in terms of age, education, work and income. Only the type of place of residence was concentrated in the county seat, this can be attributed to the place of research, the University of Kaposvár, and our personal acquaintances, who are concentrated in Pécs and its surroundings. We sent an email with the study and questionnaire information to each participant, as well as a link to complete the questionnaire and a unique entry code.

In Step 4, participants evaluated the statements we created after the pilot version. Our target group was the average Hungarian consumer; consequently, we also formulated the questionnaire in Hungarian, which is more sophisticated than the statements in English presented in the publication. Participants first divided the statements into three groups, either agreeing, expressing neutrality, or disagreeing with them. After dividing the 25 statements into three groups, they had to place the same statements in a knit pyramid. According to this, -4 was the least specific statement, with neutral cards drawn to 0 and the most preferred card assigned to 4. The Q-Method survey was followed by a short questionnaire in which participants had to answer nine questions about daily habits and socio-demographic parameters.

The online "Q Method Software" was used to make calculations, but for the sake of completeness, we found it important to present the statistical and mathematical background as well. The purpose of the Q-Study is to find out whether there is a concordance between the opinions of the contributors and whether it is possible to form a common opinion from the evaluation of the statements (Q-Sample). As a result of the factor analysis, a hypothetical Q-order has been obtained for each group based on the order of opinion. The online software worked in beta version, so we had to verify the results with PQMethod Software and correct some data.

Results and Discussion

As a result of our Q-analysis, we created 4 factors to minimise the number of factors and achieve a given level of total variance. Table 1 shows the main characteristics of the factors.

A total of 65 respondents were placed in different groups (factors), 76% of all participants (85 people). Factor 'A' con-

Table 1: Factor Characteristics.

Factor Characteristics	A	B	C	D
Average Reliability Coefficient	0.8	0.8	0.8	0.8
Number of loading Q-Sorts	26	21	10	8
Eigenvalues	15	14	8	7
Explained variance	18	16	9	8
Composite Reliability	0.99	0.99	0.98	0.97
Standard Error of Factor Scores	0.098	0.108	0.156	0.174

Source: own composition

tains the highest number of items, 40% of the participants in the factors. In the statistical hypothesis test, we examined how the given factor explains the opinion of the variables (respondents). It is observable from Table 4 that the Eigenvalues of all four factors are greater than 1, i.e. all the factors meet the criteria formulated in the Q-method.

The factor analysis gives the normalized factor values (Z-scores) for each statement, showing how much the given statement differs from the mean. Statements that have an absolute Z-Score greater than 1 are called factor-specific statements. The highest value indicates the statements with which the members of the opinion group are most in agreement, while the lowest value statements are the least characteristic.

Factor 'A' (N=26) – "Alternative, Green Consumers"

Nowadays the products from alternative farms are more and more popular. The actors of Factor 'A' are also committed to the products of the sustainable economy, so agroforestry products would also be of interest. 77% of the players in the factor are women, visit forests relatively regularly and are willing to pay extra for agroforestry products. Table 2 contains the statements that determine the factor the most.

The members of the opinion group choose producer and local markets for their shopping, and would not buy agroforestry products in hypermarkets, supermarkets or online. The environmentally friendly nature of agroforestry products positively influences their purchasing decision, and they would be willing to replace their usual product if they found an alternative towards agroforestry.

Factor 'B' (N=21) – "Inquisitive Consumers"

Opinion Group 'B' is interested in and eager to be informed about the products purchased. They are not as committed to alternative/sustainable farming products as Factor 'A' but are willing to pay more for them.

Table 3 presents the statements which are significantly specific for the Factor 'B'. Participants of the Factor 'B' are typically communicative and inquisitive. They are eager to be informed about the products and their origin by the sellers/producers influencing their decision. Like Factor 'A', they choose the traditional markets for their purchases. They would be happy to visit agroforestry if they were to organise programs (e.g. pick your own) and organise workshops. With TV commercials and a wholesale presence, the sector's products would not be of interest. They like catalogues as well.

Factor 'C' (N=10) – "Busy Consumers"

Factor 'C' actors are said not to have a financial problem but live in a better financial position than other Factors. Most of them are men and a high proportion of them are in leadership positions. From demographic data, we conclude that they are busy due to their work and lifestyle. They are less biased towards the products of alternative/sustainable farming. According to their opinion (Table 4), they obtain information from the Internet. The participants of this factor can be reached with articles published on various news portals and online media most effectively. The low ecological footprint of agroforestry products is a product advantage

Table 2: Specific statements of Factor 'A'.

#	Statement	Z-Scores
11	I like to consume at local markets from producers.	1.6311
5	Agroforestry products have a lower ecological footprint than conventional farm products.	1.3918
10	It would be a good idea for farms/businesses to give discount for loyal and regular customers.	1.1214
24	If it is mentioned that a product comes from a sustainable economy (e.g. organic farming, agroforestry), it is more likely that I will buy it.	1.0298
4	I would replace a conventional product if I found an alternative coming from agroforestry.	1.0169
14	I would only buy agroforestry products if I found them in super- or hypermarkets.	-1.4883
1	I rely more on products from conventional or industrial production than those from alternative production (e.g. organic farming, agroforestry) because I believe they are better controlled.	-1.6009
16	Convenience is important to me, so I prefer to shop from the catalogue and/or online.	-1.6384
6	The quality of products from a traditional farm (e.g. honey, fruit, herb, mushrooms, meat, eggs, wooden products, etc.) is better than the ones coming from conventional agriculture because they only have to focus on one type of cultivation.	-1.8375

Source: own composition

Table 3: Specific statements of Factor 'B'.

#	Statement	Z-Scores
11	I like to consume/buy at local markets from producers.	1.7526
7	It is worth paying a little more for products from a sustainable economy (e.g. organic farming, agroforestry).	1.3447
17	I would be happy to go and visit an agroforestry farm if they organised programs and workshops.	1.2540
12	I like to talk to the producers before I buy their product.	1.1354
13	A producer can persuade me to buy their product.	1.0771
3	Trademarks only make products more expensive.	-1.0584
15	I do not trust the products ordered from catalogues.	-1.1262
18	It bothers me when a seller/producer starts talking to me while I am shopping.	-1.2148
14	I would only buy agroforestry products if I found them in super- or hypermarkets.	-1.5299
20	With TV commercials, it is more likely that my interest in agroforestry products will be aroused.	-1.7932

Source: own composition

for them. The appearance and packaging of the products are important to Factor "C" in influencing the purchasing decision. Presumably busy and less interested than Factor 'B', they would not visit an agroforestry farm, but could be accessed through catalogues. They prefer loyalty discounts.

Factor 'D' (N=8) – "Bargain Hunter Consumers"

Most of the participants of Factor 'D' are men and work as employees. Their financial position is no higher than average and, moreover, they are not satisfied with their income. As a result, Factor 'D' is the most price sensitive consumer group. Table 5 presents the statements that are the most specific for the Factor and create the characteristics of the consumers' opinion.

The most effective way to reach Factor 'D' is to offer favourable pricing. Loyalty discounts, a favourable introductory price, gifts and samples can influence their purchasing decision in a positive way. There is also a product advantage for the environmentally friendly nature of agroforestry products, and this group would therefore be willing to pay higher prices. They are less informed about TV commercials and social media than Factor 'C' actors.

Conclusions and Policy Recommendations

During Q-analysis, we distinguished four consumer categories based on their opinions. The answer was formulated with the help of the four dimensions of the marketing mix, product, pricing, distribution and communication. In terms of the product dimension, all consumers believe that the ecological footprint of agroforestry products is lower than that of conventional, intensive or industrial products, but there is a clear willingness to switch to factor 'A' and 'B'. By changing consumer preferences and becoming increasingly "fashionable" in terms of environmental protection, the sector can create product benefits through the positive environmental impacts of products from alternative economies, including agroforestry systems.

In terms of price, 83.5% of the respondents would be willing to pay a higher price if they found an attractive agroforestry product. Preferring loyalty discounts was typical of Factors 'A' and 'D', that is why agroforestry farmers should strive to establish the widest possible range of them. As a result, they are difficult to reach because they may be loyal customers of other farmers/businesses. Consumers in Factor 'D' are bargain hunters positively influenced by a favourable introductory price.

Regarding place, Opinion Groups 'A' and 'B' choose the traditional market for their purchases. Direct selling at local or farmers' markets, fairs, or short supply chains can be beneficial to the sector as it can be addressed personally by shoppers such as Factor 'A' and 'B', thus enabling them to more effectively buy their own products communicating added value. Today, more and more Local Product Days, farmers' markets and fairs are being organised by communities and towns. Their appearance could effectively reach the potential consumer base of the sector. Factor 'C' cares about convenience, they are willing to shop online or from catalogues. They can be reached through webshops, social media sites (e.g. Facebook, Instagram); that is why we recommend agroforestry farmers to use these channels actively.

As to promotion, the most effective means of delivering agroforestry products to Factors 'A', 'B' and 'D' is through direct sales. These are channelled through local and farm-

Table 4: Specific statements of Factor 'C'.

#	Statement	Z-Scores
5	Agroforestry products have a lower ecological footprint than conventional farm products.	2.0639
23	I occasionally purchase from farms because I read about them in articles published on trusted news portals.	1.3572
10	It would be a good idea for farms/businesses to give discount for loyal and regular customers.	1.3525
24	If it is mentioned that a product comes from a sustainable economy (e.g. organic farming, agroforestry), it is more likely that I buy it.	1.1957
15	I do not trust the products ordered from catalogues.	-1.1357
14	I would only buy agroforestry products if I found them in super- or hypermarkets.	-1.1701
22	I don't care about the packaging of the product.	-1.2178
17	I would be happy to go and visit an agroforestry farm if they organised programs and workshops.	-1.3207
3	Trademarks only make products more expensive.	-2.0983

Source: own composition

Table 5: Specific statements of Factor 'D'.

#	Statement	Z-Scores
10	It would be a good idea for farms/businesses to give discount for loyal and regular customers.	2.2522
19	If a seller offers a product tasting, I'm more likely to buy it.	2.1457
7	It is worth paying a little more for products from a sustainable economy (e.g. organic farming, agroforestry).	1.0525
5	Agroforestry products have a lower ecological footprint than conventional farm products.	1.0121
13	A producer can persuade me to buy their product.	-1.1044
20	With TV commercials, it is more likely that my interest in agroforestry products will be aroused.	-1.1698
8	I usually don't try a new product just because it's sold at a bargain or introductory price.	-1.2538
21	I get information about new products from social media (Facebook, Instagram, news portals etc.).	-1.6289

Source: own composition

ers' markets, fairs, where the positive characteristics of the products can be easily communicated to potential consumers by agroforestry farmers. Factor 'B' has a significant interest in visiting agroforestry systems, but it is also possible to arouse the interest of consumers in Factors 'A' and 'B' with various events. In addition, providing direct sales and gifts and tasting can also have a positive impact mainly on Factor 'D'. Factor 'C' can be achieved through well-established online marketing. Appearance on social media (Facebook, Instagram) and news portals could also deliver agroforestry products to the group of consumers who are busy and cannot be reached through direct sales.

As final conclusion, we suggest that it is important to increase awareness amongst the general public, which can create incentives for consumers to buy agroforestry products and in addition, pay premium prices for them. Moreover, emphasising local origin as a unique-selling-proposition can play an important role for all opinion groups.

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